

ordinary type as if both were tenable. For instance, there is a *Campanula strigosa* of Vahl and a *Campanula strigosa* of Solander, both in ordinary type. In such a case the nomenclature clerk may write:

Campanula strigosa (Solander or Vahl?).

It is well to explain in the beginning of a catalogue which names are the proper ones and which are the synonyms. The latter are commonly in italics. It makes little difference how a catalogue is arranged, provided that there is a full index somewhere. Few indexes are full enough. The Horsford catalogue has no index, and there are seven departments, the arrangement being alphabetical under each department. The fact that there are seven departments should therefore be prominently stated, and the seven departments listed in the space of an inch or two in such a way that the mind can take in the whole scheme.—WILHELM MILLER, *Cornell University*.

THE BOTANICAL GARDEN AND INSTITUTE IN PADUA.

THE readers of the BOTANICAL GAZETTE may be interested to hear something of the ancient Botanical Garden of the University of Padua, instituted by the Venetian Senate in a decree of the twenty-ninth of June, 1545, through the wise forethought of Francis Bonafede in 1543.

The director, Professor P. A. Saccardo, who has recently improved the Institute and the Garden, published some interesting notices upon the 350th anniversary of its foundation from which I take the greatest part of this note.¹

Professor Saccardo's activity turned, in the first place, to increase the library, initiated in 1770 by one of his predecessors, John Marsili, and enriched afterwards by Professor Bonato and Professor De Visiani, so that it contains already more than 10,000 volumes. Among the books, besides about forty periodical reviews and many valuable works, I must mention the oldest botanical book with instructive figures, viz., *Herbarium Apuleji Platonici*, printed in Rome in 1479.

The director has filled up during recent years the series of works on the floras, especially on the foreign ones, to make easier the labor

¹ SACCARDO, P. A.: L'Orto botanico di Padova nei 1895 (anno CCCL dalla sua fondazione). Padua. 1895. Quarto, with one topographical and eight heliotype plates.

of setting in order the herbaria, which he was then disposed to begin and which is now well advanced.

A hall, built in 1842 as a greenhouse, was arranged in 1892 to contain the general herbarium, consisting of 396 packets disposed horizontally in appropriate compartments of two great cases, with about 24,000 species represented by 60,000 specimens; the Dalmatian herbarium, composed of 37 packets with 2500 species and 10,000 specimens; and the cryptogamic herbarium, composed of commercial collections and those presented to the University.

The phanerogamic herbarium, especially from the Venetian provinces (65 packets, 3500 species, 10,000 specimens) is Saccardo's own and is placed in a great hall which was adapted in 1880 as a laboratory and contains also collections and materials necessary for scientific instruction. The students do their laboratory work there, under the attendant's guidance.

The mycologic herbarium, which is also the property of the director, deserves particular mention. It is in the director's room, in 66 cases ($50 \times 36 \times 23$ cm), and represents more than 30,000 specimens, many of which come from mycologists, some very rare. Saccardo's herbarium and mycologic library (300 volumes and 2300 pamphlets) are the important scientific material with which that clever mycologist wrote the classic *Sylloge Fungorum*. In the director's room near the library are the archives of the garden where there are the interesting autographs of Malpighi, Prospero Alpino, Cesalpino, and Pontedera.

Professor Saccardo has also increased the collection of portraits of botanists, a collection initiated by his predecessor, Professor Robert De Visiani. It is really well furnished, especially through gifts made by Baron Todaro, of Palermo, the son of the late botanist Augustin Todaro. It contains about 600 portraits, among which there are several of American botanists and of botanists who have studied the American flora.

In the lecture hall, built in 1842, which can contain two hundred men, there are portraits of seventeen professors of botany, in oil or black-and-white. Three weekly lessons on general botany are given in this hall by the titular professor; two free professors give free lessons (two a week) especially to naturalists and chemists; Dr. Adrian Fiori, attendant to the chair, delivers a course on cryptogams and plant pathology; and the writer delivers a course on plant physiology, with applications to agriculture.

So much for the Institute; but a great deal might be added as to the Garden and its greenhouses, which are rich in interesting plants.² Classic plants are a *Chamærops humilis* L. var. *arborescens*, 9.5^m high, planted about 1585, and visited September 27, 1796, by Goethe, wherefore it is known as "Goethe's palm tree;" a *Tecoma grandiflora* Del., admired by Goethe for its beautiful flowering; a very old *Vitex Agnus-castus* L. (about 345 years old); an *Araucaria excelsa* R. Br. 20^m high, kept in a special greenhouse; many very beautiful trees (*Gymnocladus Canadensis* Lam., *Gingko biloba* L., *Diospyrus Lotus* L., *Carya olivæformis* Nutt., etc.). The greenhouses also are furnished with beautiful plants, among them an *Astrocaryon Chonta* Mart., a *Cycas circinalis* L., a *Cycas revoluta* Thunb., a *Pandanus utilis* Bory, a *Livistona australis* R. Br., many Cactaceæ and Orchideæ.

More than 5700 plants are cultivated in pots, to which we must add 110 old trees in the open air, 412 younger trees and shrubs, and 26 old greenhouse trees. — J. B. DETONI, *Padua, Italy.*

CONTRIBUTIONS FROM MY HERBARIUM.

Crataegus Sauratonæ, n. sp. — A small tree 3–4^m in height, with an oval crown and ascending or spreading branches, the branches generally very crooked, as well as the slender twigs; twigs ash-gray in color, and armed, though sparingly, with stout gray or reddish spines, the twig of the season glabrous and red-brown: leaves glabrous, 2–5^{cm} long, obovate or elliptic, or rhombic-ovate, acute and sharply serrate above the middle, mostly entire towards the narrow base, with three or four pairs of prominent veins; the slender petiole 0.5–1^{cm} long; stipules, bud scales, and floral bracts not conspicuously enlarging, and early deciduous: flowers in rather small glabrous corymbs; sepals entire, lanceolate, glabrous; pedicels 1.5–3^{cm} long, glabrous, the red fruit about 12^{mm} in diameter, or more; styles four or five.

Related to *Crataegus collina* Chapm., and separated from it by having smaller glabrous foliage, sharply serrate leaves, and larger fruit. This species has been collected in wet flats along streams in the Sauraton mountains of North Carolina; on the tributaries of the Neuse river, in Granville county, N. C.; and along streams in Caswell county, N. C.; growing with *Crataegus viridis* L., the white oak, and shag-bark hickory.

² For the accounts of these see R. de Visiani: *Di alcune piante storiche del giardino di Padova.* Padova, 1856. — G. B. DeToni: *Alberi e frutici ragguardevoli nei giardini di Padova.* Padova, 1887.